Office Action Summary	Application No.	Applicant(s)	
	09/981,288	PARK ET AL.	
	Examiner	Art Unit	
	GELEK TOPGYAL	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *interview summary dated 8 September 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 October 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. *08 September 2008* .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention has been requested to be changed within the PTO's system as requested by the applicants.

Terminal Disclaimer

2. The terminal disclaimer filed on 6/9/2008 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of pending application numbers 11/432,391 filed May 12, 2006, 11/431,657 filed May 11, 2006 and 10/986,133 filed November 12, 2004 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Response to Arguments

3. Applicant's arguments filed 4/22/2008 have been fully considered but they are not persuasive.

4. In re page 8, the applicants request a change in the title of the invention. As requested, the examiner has notified the personnel in charge of making the requested changes.

5. In re pages 9-15, the applicants presents arguments regarding the Double Patenting rejections that were made with copending applications 10/986,133, 11/431,657 and 11/432,391. However, with the filing and the approval of the Terminal Disclaimer filed, the arguments are moot.

6. In re pages 19, the applicants present the argument that Yamauchi teaches that the elementary streams of (1) (video data) (2)-(4) (audio data Ach, Bch, Cch), (5) (sub-

picture Ach), and (6) (sub-picture Bch), are recorded in separate bitstreams since they are interleaved in the VOBs and that therefore the claimed limitation is not taught by Yamauchi.

In response, the examiner respectfully disagrees. The word "bitstream" as recited in the claim can be interpreted in different light since the claim language does not specify the breadth of the word "bitstream". The claim language merely states that the main data, sub data and extra data are recorded in separate bitstreams. As taught in Yamauchi, each of the multiplicity of streams are recorded separately, i.e., at one specific point in time, no two streams as recorded on the medium overlap one another. At a point in time, there only exists information from a single stream, e.g. video data or audio Ach data, etc. Furthermore, the claimed limitation can also be met if the data set of one VOBU unit is taken into consideration. A VOBU (see Fig. 3-4) consists of (1) (video data) (2)-(4) (audio data Ach, Bch, Cch), (5) (sub-picture Ach), and (6) (sub-picture Bch). Therefore, within this finite storage region of a single VOBU exists 6 separately bitstreams, and therefore, the limitations as claimed are clearly met since the size of the main, sub and extra data are not defined in the claim.

7. In re pages 19-20, the applicants argue that Yamauchi et al. fails to teach that the PGC information or the SPCH table includes “playback time information” as recited in claims 1, 5 and 13.

In response, the examiner respectfully disagrees. The PGC information is used to “achieve the reproduction of a plurality of VOBs selected arbitrarily in an *arbitrary order*" as recited in col. 13, lines 19-21 and of “route information" in col. 13, lines 45-53.

Similarly, the SPCH table information dictates in col. 14, line 10-14 to “secure the *continuity* of the audio reproduction is such case where the VOBs of the present PGC”. Both these statements have defined a system where the different sets of data (sub-picture Ach, sub-picture Bch, video data and audio data, etc) are reproduced according to the order of reproduction as stored in the PGC management information/SPCH table. The order of reproduction has to be with *respect to time*, therefore, the claimed language of "wherein the navigation information comprises an identifier to identify a particular bitstream of the main data, and playback time information for the sub data corresponding to the main data” is met since the PGC management information allows for the different sets of data to be reproduced in synchronization according to the PGC management information.

Furthermore, the applicants argue limitations that have removed from previously presented claims. These arguments are moot since the present claims don’t recite those limitations.

8. Furthermore, the applicants argue in pages 20-22 that Yamauchi fails to teach "a mixer arranged to mix the main data and the sub data read by the reading unit based on the navigation information read by the reading unit to obtain mixed main data and sub data" and the Yamauchi’s main data, sub data and extra data are already mixed as they are interleaved. In response, the limitation as being argued is no longer present in the current claims, and therefore the arguments are moot.

However, even though the argument is moot, the examiner respectfully disagrees. The system of Yamauchi does in fact teach the claimed "mixer" holds as the

timely display of the main video data along with the sub-picture data through the use of the navigation information (as discussed above) and implemented by the AV decoding unit 85 in Figure 8. It is understood that the data is stored in an interleaved manner, however claim 13 implements a reproduction method wherein the main data and the sub-data and additionally extra data are split up into separate streams by system decoder 86 upon reproduction, however the main data, sub data and extra data are decoded separately (another proof they are not mixed already) and mixed together once again for simultaneous reproduction/display (by using navigation information stored in the PGC management information).

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. **Claims 1-16 and 48** are rejected under 35 U.S.C. 102(e) as being anticipated by Yamauchi et al. (US 6,088,507).

Regarding claim 1, Yamauchi et al. teaches a data storage medium comprising:

main data including audio data and/or video data (Fig. 4A-4B, Elementary Streams 1 with Elementary Streams 2-4 as taught in col. 8, lines 44-54);

sub data recorded in a separate bitstream from the main data to be reproduced in synchronization with the main data by a reproducing apparatus (Fig. 4A-4B, Elementary Stream 5 (SUB-PICTURE Ach) as taught in col. 8, lines 55-60); and

navigation information (col. 14, lines 4-57 teaches of a PGC Information Management Table that stores a "SP CH Table" that is used to reproduce a particular Sub-picture channel in conjunction with the video playback as discussed in col. 13, lines 45-52) defining a relation required for the main data and the sub data to be output in synchronization with each other by the reproducing apparatus,

wherein the navigation information comprises an identifier (col. 14, lines 4-57 teaches of sub-picture ID stored within the SPCH Table. Figs. 13-15, the PGC Information Management Table that stores the identifiers for both main audio/video data and the sub-stream data that is stored on the optical disc) to identify a particular bitstream of the main data and playback time information for the sub data corresponding to the main data (as discussed above in col. 14, lines 4-57, the sub picture channel is played in synchronization with the main audio/video data. The playback order, which is reproduced with respect to time, of the sub data and the main data are stored with the PGC management information and the SPCH table) for the sub data corresponding to the main data.

Regarding claim 2, Yamauchi et al. teaches the claimed further comprising extra data (Fig. 4A-4B teaches of multiple sub picture streams. Therefore a second or third sub picture stream meets the claimed extra data) recorded in a separate bitstream from the main data and the sub data to be reproduced in connection with the main data

by the reproducing apparatus, wherein the navigation information further defines a relation required for the main data and the extra data to be output in synchronization with each other by the reproducing apparatus (as discussed in claim 1 above with reference of the system's ability to reproduce a sub picture stream in synchronization with the main audio/video data), and further comprises playback time information (as discussed in claim 1 above) for the extra data corresponding to the main data, and wherein the main data, the sub data and the extra data are recorded simultaneously by alternation or in a predetermined sequential order in different areas on the data storage medium (Fig. 3-4A shows an order in which the main audio/video data and the multiple sub picture streams are sequential).

Regarding claim 3, Yamauchi et al. teaches the claimed wherein the main data are received and encoded by an internal encoder or are input through a digital interface and recorded on the data storage medium (col. 26, lines 16-30 teaches wherein the production method to create the optical disk is a personal computer or a workstation that temporarily stores the volume area data on a magnetic medium. Therefore, during production of an optical disk, a traditional workstation/PC can receive inputs from digital or from analog sources and encode the analog information so that it can be recorded on an optical disk).

Regarding claim 4, Yamauchi et al. teaches the claimed wherein the sub data and/or the extra data are received and encoded by an internal encoder (as discussed in claim 3 above) or are input through the digital interface (as discussed in claim 3 above) and recorded on the data storage medium.

Claims 5-6 are rejected for the same reasons as discussed above in claims 1-2, respectively.

Claims 7-12 are rejected for the same reasons as discussed in claim 3 above. Furthermore, it is taught by Yamauchi et al. that the volume area data can be of recorded on a magnetic tape, which can be digital or an analog medium.

Reproducing method claim 13 and 16 are rejected for the same reasons as discussed in claim 1 and 2 above, and furthermore, Yamauchi et al. teaches in Figs. 22-26 of a method of reproducing a particular Video Title Set using the management information (as discussed above) to reproduce main audio/video data along with synchronized sub-picture data. The system a disclosed in Figure 18 discloses wherein the main data, sub data and extra data are read from the optical disc by way of the system decoder 85, which splits them so they can be separately decoded. Thereon, the picture mixing unit 90 mixes the main, sub and extra data together as defined in the PGC management information/SPCH table.

Regarding claims 14-15, Yamauchi et al. teaches wherein audio/video data and sub-picture data is decoded by an AV decoding unit 85 in Fig. 15.

Claim 48 is rejected for the same reasons as discussed in claim 1 above.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GELEK TOPGYAL whose telephone number is (571)272-8891. The examiner can normally be reached on 8:30am -5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gelek Topgyal/

Examiner, Art Unit 2621

/Thai Tran/

Supervisory Patent Examiner, Art Unit 2621